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AUTHOR Glass, Gene V.; Smith, Mary Lee
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ABSTRACT

This paper examines the research on "pull out," a method or type of school organization for remedial teaching of Title I eligible pupils. Four major issues addressed are: (1) the educational benefits of pulling students out of the daily routine to provide them with compensatory education services; (2) the impact of such action on students; (3) whether a child is better served if he remains in the classroom all day; and (4) alternatives to "pull out" available for providing compensatory assistance to educationally disadvantaged children. Other related issues examined are: the prevalence of "pull out" programs, the benefits and/or losses resulting from "pull out" programs, teacher contact with and attitudes toward pulled out pupils, financial costs of "pull out" programs, and the potential contribution of "pull out" programs to cultural separatism, racial segregation, or even racism. It is concluded that despite the near universality of pulling Title I eligible pupils out of regular classrooms for compensatory instruction, the procedure has neither academic nor social benefits, may be detrimental, and is used mostly to satisfy Title I regulations. Alternatives to "pull out" are recommended.
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"PULL OUT" IN COMPENSATORY EDUCATION

Gene V Glass
Mary Lee Smith

Laboratory of Educational Research
University of Colorado

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We gathered a large number of documents and interviewed many people in just a few weeks. It would not have been possible to produce this report without the voluntary cooperation of dozens of persons who consented on a moment's notice to be interviewed, or dig up old data, or mail us their reports and papers. The persons who gave us interviews are acknowledged in Appendix A. The staff of System Development Corporation, particularly Ralph Hoepfner and Clarence Bradford, were helpful in performing new data anlayses and explaining old ones. Len Cahen of the Far West Laboratory for Educational Research and Development shared several unpublished papers with us. Bob Stonehill of the U.S. Office of Education found reports for us that we wouldn't have obtained otherwise.

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SUMMARY

"PULL OUT" IN COMPENSATORY EDUCATION

"Pull Out" is a method or type of school organization for remedial teaching of Title I eligible pupils. With this plan, Title I eligible pupils are pulled out of regular classes containing both eligible and non-eligible pupils and sent to a different room to receive instruction from a remedial specialist teacher. "Pull Out" has emerged as a prominent feature of compensatory education in the past few years, and it now concerns policy-makers, researchers, and educators alike. This paper was written in response to a request from the Office of the Commissioner of Education to examine the research on "pull out." In the course of preparing this opinion, we interviewed about thirty persons in schools, state education agencies, the federal government, universities, and teacher organizations; in addition, we read and, in some instances, reanalyzed data from approximately 150 documents.

The Incidence and Context of "Pull Out"

Roughly 75% of compensatory education pupils receive remedial reading instruction in the "pull out" setting; the comparable figures for mathematics and language are 45% and 41%, respectively. When these figures are corrected to eliminate pupils in 100% Title I eligible classrooms who do not need to be "pulled out," the "pull out" rates in all other classrooms rise to 84% for reading, 54% for mathematics, and 50% for language arts. When one considers

further that pupils might be "pulled out" for one of these subjects and not the other, it is plausible to say that in classes not 100% "Title I eligible" the practice of "pull out" for compensatory teaching is nearly universal.

"Pull out" is probably more prevalent in small and medium-sized districts than in large, urban schools. "Pulled out" and "mainstreamed" pupils (i.e., compensatory education pupils taught in regular classes) do not differ in their academic performance before remedial teaching; thus, "pull out" seems not to be prescribed differentially for pupils with varying remedial needs.

The amount of the entire instructional day spent in the "pull out" setting rose from around 5% in 1973-1974 to around 9% in 1974-1975. The percentage of time does not vary by subject taught (reading vs. mathematics) or by grade level (elementary vs. secondary). Although time in the "pull out" setting is a small part of the total instructional day, at Grade 1 it constitutes almost half of the instructional time funded by Title I.

At the elementary school level, one-fifth of the "pulled out" pupils miss regular classroom instruction in the subject for which they are removed from the regular class (i.e., they are "pulled out" of regular reading to receive remedial reading). One-fourth miss social studies; one-seventh miss science. One-third miss no academic subject at all since they are pulled out during study periods in the regular class. (By some chop logic we do not understand, supplanting is not supplanting at all if one supplants science and social studies.)

The "pulled out" pupil has three chances in four of receiving remedial instruction from a remedial subject matter specialist. (The comparable chances

for a mainstreamed compensatory education pupil are only one in three.) However, the "specialist" teachers receive very little training for their job (less than ten hours in any one year on the average) and they receive virtually no extra pay (less than 5% more than regular teachers). These data seem to indicate that remedial specialists are distinguished from regular teachers neither by more intensive training nor by the pay they receive. The most cynical assessment of their role and contribution would be that remedial specialist teachers are merely rechristened regular classroom teachers -- the motive for so designating them being, perhaps, the need to comply with certain Title I regulations.

Finally, "pull out" programs appear to be roughly twice as expensive per pupil as mainstream compensatory programs, probably because of much smaller class size in the former than the latter.

The Effects of "Pull Out"

Experimental evidence is skimpy on the effects of the "pull out" technique per se on pupils' academic progress. A study recently published by the National Institute of Education (September 1977) alleges to show beneficial effects of "pull out" at certain grade levels and in certain subjects and detrimental effects elsewhere. We have examined the data and find little support for these conclusions. The academic gains made by "pulled out" and "mainstreamed" compensatory education pupils in the NIE data are virtually identical, differing over all grades and subjects by less than one-quarter month in grade-equivalent units. Perhaps a better data base for assessing the effects of "pull out" exists in the data files of the evaluation of the Emergency School Aid Act (ESAA) conducted by

Systems Development Corporation. There one finds a consistent negative relationship between the percentage of time pupils spend in the "pull out" setting and their math and reading achievement. This relationship was consistent across all grades and subjects; it held true for samples numbering about 10,000 pupils in total. Moreover, the relationship persisted even after more than a dozen background variables were controlled statistically.

A vast body of empirical research on instructional methods and organization is pertinent to the "pull out" problem because the phenomena investigated share various features with the "pull out" technique. Such related topics include the following: (a) ability grouping, (b) mainstreaming the handicapped, (c) racial desegregation, (d) labeling pupils with consequent changes in teachers' expectations of them, and (e) peer tutoring. Our synopses of the research evidence on these topics are as follows. (a) The research on ability grouping is inconsistent, uninformative, and a battleground for various social ideologies; it was not helpful to us in forming opinions about "pull out." (b) The research on mainstreaming the handicapped was exceedingly skimpy, but the findings of three studies point toward the benefits of integrating EMH, EMR, or emotionally disturbed pupils into the regular classroom. (c) Nearly all research on racial desegregation fails to trace racial mixing at levels lower than the school building. Using the Coleman data, McPartland (1969) assessed the effects on verbal achievement of black pupils having predominantly black classmates instead of white classmates. Although the effect diminished as more background variables were partialed out, the effect of racial segregation at the classroom level was negative in first analyses and never appeared beneficial regardless of how many

variables were statistically controlled. (d) Research into the effects of labeling pupils on teachers' behavior toward them and expectations of them proved to be most pertinent and startling. Labeling a pupil "mentally retarded," "intellectually slow," or "academically weak," reduces his academic achievement (by one-quarter standard deviation below that for comparable pupils not so labeled). Furthermore, teachers' attention and support for pupils invidiously labeled are reduced by one-third standard deviation (below those for comparable unlabeled pupils); and teachers' judgment of labeled pupils' success, motivation, social competence, etc. is reduced by nearly one-half standard deviation. These findings from over forty experiments indicate that the effects of labeling pupils are large and worrisome. (e) Finally, research on peer tutoring, which presumably could occur less often in the "pull out" programs. Pupils pulled out of regular classrooms would have to receive remarkably effective compensatory programs to offset the potential risks incurred. In our opinion, the "pulled out" pupil is placed in moderate jeopardy of being dysfunctionally labeled, of missing opportunities for peer tutoring and role modeling, and of being segregated from pupils of different ethnic groups.

Historical and Political Context of "Pull Out"

We believe that the "pull out" problem was created by the ESEA Title I regulations and the manner in which they have been interpreted and enforced. To quote one state education department official, "'Pull out' exists for one reason only; because the 'locals' are afraid Big Brother will catch them in a 'supplanting' violation." The practice of pulling Title I eligible pupils out

of regular classrooms so that a "specialist" teacher could give them instruction in a separate classroom did not grow out of professional judgment about curriculum or instruction. The history is complex, but nearly any disinterested reading of it leads to the same conclusion: "pull out" is an artifice created by schools at the urging of USOE's minions in state education departments to satisfy regulations concerning "supplementing, not supplanting" and "excess costs." The regulations themselves reflect a philosophy that seems seldom to have been seriously challenged. They are enforced with a nearly obsessive concern that a "noneligible" pupil might receive Title I services. Yet the argument can be made that even pupils performing at grade level and above are educationally deprived by merit of attending a school with large concentrations of poor (since such schools attract less qualified teachers, have poorer opportunities for peer tutoring, etc.).

One finds virtually no support for the "pull out" concept among educators or their professional organizations. Teachers worry that pulling pupils out of class creates discontinuities in their schooling and makes coordination of teaching difficult. Others worry that the regular classroom teachers will feel less responsible for pupils whose needs are presumably being met somewhere else by a specialist teacher. The National Education Association regards "pull out" as a minor issue and will merely watch its evolution, being concerned only with keeping pupil-to-teacher ratios low. The "pull out" problem seems to be no one's major concern. But it may well be one of those quiet, inconspicuous matters that count heavily in ways seldom clearly seen.

Conclusions, Observations, and Recommendations

Our work has led us to the following conclusions and observations about the "pull out" technique and several recommendations for dealing with the problems it raises.

1. Pulling Title I eligible pupils out of regular classrooms for compensatory instruction is virtually universal.

2. The "pull out" procedure per se has no clear academic or social benefits and may, in fact, be detrimental to pupils' progress and adjustment to school.

3. The "pull out" procedure is used by schools more to satisfy Title I regulations than because it is judged by teachers to be a sensible and beneficial plan.

We wish to bring the following recommendations to the attention of those persons at all levels who administer Title I programs and who will influence the evolution of compensatory education:

1. The Title I regulations, which now reflect an overweening concern with targeting funds on "eligible" pupils, should be examined. New considerations should be given to the needs of all pupils in poor schools and the integrity of total school programs.

2. Instructional strategies should be devised that would eliminate the invidious labeling of compensatory education pupils and their segregation from classes of "regular" pupils.

3. Teachers, administrators and other persons connected with Title I programs should be informed of the findings of research on the "pull out" method and associated phenomena.

4. Methods should be devised of counteracting the possibly detrimental effects of "pull out" where educators choose to use it or have no reasonable alternatives. Such methods could include means for coordinating instruction across two sites and techniques of teacher observation that lessen the possibility that "pulled out" pupils will be unconsciously neglected in regular classes.

Chapter 1

THE ISSUES

This paper was commissioned for the purpose of answering four questions:

1. What are the educational benefits of pulling students out of the daily routine to provide them with compensatory education services?

2. How much of an impact on the child is there? Positive or negative?

3. Can we better serve the child if he remains in the classroom all day?

4. What are alternatives to "pull out" available for providing compensatory assistance to educationally disadvantaged children?

These questions are encompassed by a slightly broader set of issues around which we organized our inquiry and this report:

1. How prevalent are "pull out" compensatory education programs?
   a. What kinds of schools use them?
   b. From what types of regular classroom activities are pupils "pulled out"?
   c. What services are given to pupils in "pull out" programs?

2. What benefits or losses result from "pull out" programs?
   a. Are pupils placed in richer learning environments than can be found in regular classrooms?
   b. Do pupils lose the benefits of being with classmates not similarly "pulled out"?
   c. Are pupils labeled as a result of being "pulled out"? And does the label cause them to be treated differently by teachers and classmates?
   d. Do teachers lose contact with "pulled out" pupils and feel less responsibility for their progress?
   e. Is the academic progress of "pulled out" pupils accelerated or retarded?
   f. Does "pull out" contribute in unintentional and subtle ways to cultural separatism, racial segregation or even racism itself?

3. What are the financial costs of "pull out" programs and how do they compare with other ways of providing compensatory instruction?

4. What position on "pull out" should HEW/OE take?
   a. Who is responsible for "pull out" programs?
   b. What alternative policies are there? What benefits and costs are associated with each? What would be the likely consequences of recommending each? What political/social forces support or oppose each alternative?

Chapter 2

METHODOLOGY OF THE STUDY

The issues in this study were researched via two principal avenues: (1) interviews with educators, policy-makers, and researchers, and (2) examination and synthesis of documents on "pull out" programs, the policy context from which they arose, their character, and their effects.

Interviews

Approximately thirty individuals were interviewed, most by telephone, in the course of this study. Opinions and observations were sought from persons at all levels of the schooling system, from USOE to state departments of education, to local school districts. Researchers, practitioners, and policy-makers were interviewed. The names of those interviewed who would consent to have their names cited appear in Appendix A.

Documents

Over 150 documents were examined on the "pull out" issues. They fell into three general categories: (1) documents relating to the legislative history and administration of Title I of ESEA, (2) reports of empirical research on the character and effects of Title I "pull out" programs, and (3) reports of research on educational phenomena related to the "pull out" instructional technique.

1. History and Administration of Title I (ESEA). The standard references (e.g., Bailey and Mosher, 1968; McLaughlin, 1975) were useful in analyzing the

political forces that are responsible for the creation of "pull out" programs. These issues will be examined in Chapter 5.

2. Empirical Research on "Pull Out." Empirical research specifically on the problem of "pull out" is limited. Only three studies can make any pretense to be representative of more than extremely limited regions: the NIE survey of compensatory education and the Systems Development Corporation studies of the Emergency School Assistance Act and of the "Sustaining Effects of Title I." All three studies contain survey data on the incidence of "pull out," and each will eventually attempt to advance quasi-experimental evidence on the effects of the "pull out" technique.

Comparability of findings of the NIE and the Systems Development Corporation's ESAA surveys is an important feature of Chapter 3 where what is known about the character and impact of "pull out" programs is presented. The ESAA evaluation focused on elementary and secondary schools undergoing racial desegregation or with large concentrations of minorities which could not be reduced. Elementary schools were designated either Basic or Pilot; Pilot schools were minority concentrated (65% black and 18% Spanish) whereas Basic elementary schools were more nearly nationally representative. ESAA Basic elementary schools enrolled 40% black and 8% Spanish surnamed pupils; the compensatory education pupils in the NIE survey were 35% black and 10% Spanish surnamed (although they were enrolled in districts that were 20% black and 6% Spanish surnamed. Where possible, NIE findings will be compared only with the ESAA findings for Basic elementary schools. The ESAA evaluators reported that their sample slightly overrepresented "large and medium-sized" school districts compared to

the nation as a whole; any sample of Title I districts would do likewise. Exact comparability of samples is unnecessary where one is comparing relationships among variables (as opposed to averages and other measures of level). Since the major comparison of ESAA and NIE findings will concern regression coefficients, the comparability of the samples appears adequate for our purposes.

A very limited number of experimental studies of the effects of "pull out" are available. Although they are sparse and scattered, they are important precisely because there is so little controlled study of the effects of "pull out" programs that one can use to support or question the quasi-experimental evidence from the large NIE and SDC surveys.

3. Research on Topics Related to "Pull Out." The "pull out" technique shares features with several related instructional methods and organizational schemes: ability grouping, "mainstreaming" the handicapped, labeling and teacher expectations, racial desegregation, etc. The research literature on each of these related topics were searched or else we relied on reputable reviews to form an opinion. For example, the empirical research literature on teacher expectation bias (the effects of labeling pupils) was pertinent and had not been reviewed adequately for our purposes; so we obtained over forty research reports, read them, and reanalyzed most of the data. On the other extreme, the literature on ability grouping is voluminous and ancient, and it has been frequently reviewed; we relied on the findings of these reviews.

References to all documents consulted appear in the bibliography at the end of this report.

Chapter 3

THE NATURE AND EFFECTS OF "PULL OUT" PROGRAMS

Survey data gathered specifically to examine the "pull out" problem are skimpy and widely scattered. The data that follow were pieced together from a variety of sources reporting surveys conducted at different times on different populations. Nevertheless, a coherent picture emerges.

Incidence of "Pull Out" and Its Context

The NIE survey revealed that about 75% of compensatory education pupils are "pulled out" of their regular classroom to receive compensatory reading instruction. The comparable data for compensatory language arts and mathematics instruction are rates of "pull out" of 41% and 45%, respectively. The NIE data are quite in accord with early results from the "Sustaining Effects" study being conducted by Systems Development Corporation that show 77% of the compensatory education pupils being "pulled out" of regular classrooms for reading or mathematics instruction. (In the "Sustaining Effects" study, 24% of the pupils received special instruction in the regular classroom from a specialist teacher.) It must be noted, however, that there is an appreciable incidence of classrooms composed entirely of Title I eligible pupils for which "pull out" is unnecessary. Hence, the incidence of "pull out" programs where they are possible is even

larger than the above figures might lead one to believe. By combining data from different tables in the NIE survey, we have determined that the rates of "pull out" for compensatory education pupils not in 100% eligible classrooms are as follows:

Subject	Pull Out Rates
Reading	84%
Language Arts	50%
Mathematics	54%

(The comparable rate for either reading or math "pull out" estimated from the "Sustaining Effects" survey is 90%.) The "pull out" organization is virtually universal where compensatory and regular pupils are mixed in classrooms.

Use of the "pull out" method is probably more prevalent in small and rural schools than in large, urban schools because of the heavy concentration of compensatory pupils in the latter. Because of the definition of "Title I eligibility" adopted by many districts, it is not uncommon to find many urban schools composed entirely of Title I eligible pupils. Such is the case in large cities like Dallas, Chicago, Philadelphia, New York, etc.

The amount of instructional time that compensatory education pupils spend in "pull out" programs can be pieced together from various sources in the SDC reports of the ESAA evaluation. Table 3.1 contains the percentages of all instructional time that compensatory pupils spend in the pull out setting and relates that rate of time to the subject taught, the grade level of the pupils, and the date of the survey.

Several observations can be made on the findings in Table 3.1: (1) instructional time spent in the "pull out" setting is a small part of total time

Table 3.1

Percent of Instructional Time in "Pull Out" Setting

	Elementary School				Secondary School	
	Pilot (Minority concentrated)		Basic			
	1973-74	1974-75	1973-74	1974-75	1973-74	1974-75
Reading	5.7%	8.7%	6.4%	8.1%	4.1%	8.0%
Math	4.8%	8.8%	3.2%	8.2%	5.2%	9.2%

compared to "independent seat work" at 10-20%, and "group instruction" also at 10-20%, both in the regular classroom; (2) the "pull out" setting is being used increasingly -- 75% more instructional time was spent in the "pull out" setting in 1974-75 than in 1973-74 (8.5% vs. 4.9%); (3) there is no relationship between the amount of time in the "pull out" setting and the minority concentration (Pilot vs. Basic) of the school at the elementary level, nor between the amount of "pull out" time and the level of the school (elementary vs. secondary); (4) time spent in the "pull out" setting is roughly the same for remedial reading and math. However, these data that tend to assuage concern about "pull out" and make it seem an insignificant phenomenon, should be set over against findings from the District Service No. 1 data set analyzed by the National Opinion Research Center and communicated to us by David E. Wiley (26 September 1977, personal communication): at Grade 1, of all reading instruction funded by Title I, 38% of the time is in the "pull out" setting; of all non-reading instruction funded by Title I, 48% of the time is in the "pull out" setting. Figures from an earlier study by Kiesling (1971) agree with these findings. Across 37 Title I programs in California, it was found that an average of 45% of instructional time funded by Title I occurred outside the regular classroom (standard deviation = 35%).

Little is known about what types of pupil are designated for "pull out" instruction isntead of mainstream compensatory instruction in the regular classroom. One scrap of evidence is available from the NIE (September 1977) report on "Effects of Services": the pretest (Fall, grades 1 and 3) achievement of mainstreamed and pulled out pupils is virtually identical. It does not appear

that the "pull out" method is being selectively prescribed -- at least it is not being prescribed on the basis of pupils' initial achievement level.

The character of the "pull out" programs concerns what compensatory pupils leave behind in the regular classroom when they are "pulled out" and what they find in the "pull out" setting.

When an elementary school compensatory education pupil is "pulled out" of his regular classroom for remedial instruction in reading, language, or math, the chances are:

1 in 3 that no academic instruction is missed,

1 in 5 that the same subject for which he is pulled out is missed,

1 in 4 that instruction in social studies is missed,

1 in 7 that instruction in science is missed.

The "pulled out" pupil has better than 3 chances in 4 of receiving remedial instruction from a subject matter specialist. A "mainstreamed compensatory education pupil has only about 1 chance in 3 of receiving remedial instruction from a subject matter specialist.

What kind of training do such specialist teachers have? There may be some clue in the ESAA (Year #3) report (Coulson et al., 1977). There, the "specialist" teachers are called "remedial" teachers. On the average, ESAA elementary school teachers who received any training at all received about 12 hours in-service training in teaching reading and about 15 hours in-service training in math during the year of the survey. Teachers in regular classes reported receiving about half as many hours of in-service training in reading and math during the same time. However, 13% of the remedial reading and 25% of

the remedial math teachers reported having received no in-service training during that year; 12% of the specialist math teachers reported never having received special training.

It is, perhaps, more revealing to inquire into the value attached to the specialist teacher training by the schools -- such value being revealed in the increased salary of specialist teachers that the schools are willing to pay. The ESAA (Year #3, p. A-24) report reveals that regular classroom teachers in secondary and elementary schools were paid $9.45 hourly, whereas remedial reading and math specialist teachers were paid $9.95 hourly, a differential of only 5%. Hence, however the schools may regard the special expertise and training of remedial specialist teachers, such regard is not reflected in a significantly higher salary.

These data seem to indicate that remedial specialists are distinguished neither by their obviously superior training nor by the pay they receive for their services. The most cynical assessment of their role and contribution would be that remedial specialist teachers are merely rechristened regular classroom teachers -- the motive for so designating them being the need to comply with certain regulations. Two studies, however, are alleged to show that the use of remedial reading specialists is consistently related to reading gains (Kiesling, 1971; Flynn, Hass, Al-Salam, 1976). We have not had time to obtain and examine these two studies; but the key question about them is whether they were controlled experiments or quasi-experiments and if the latter, how well they were performed.

Finally, the per-pupil cost of remedial instruction in the "pull out" setting is roughly twice the cost of such instruction in the regular classroom

(Dienemann, et al., 1974). The cost difference has less to do with increased pay for specialist teachers, as was just seen, than with the smaller size in "pull out" settings.

The pupil "pulled out" of the regular classroom is placed in a smaller class that is probably ethnically and racially more homogeneous than the regular classroom. The average class size for remedial reading and math instruction is about 10 pupils although the regular classroom has an average of about 27 pupils. Instruction in the "pull out" setting appears to be slightly more individualized as might be expected where class size is reduced (NIE, September 1977, Appendix B). No data are available on the relationship between participation in "pull out" programs and race or ethnic group membership. It has long been known that classrooms in Title I schools are far more racially heterogeneous than the schools in which they reside. For example, the 1969 Survey of Compensatory Education showed that although only 13% of black pupils attended elementary schools that were nearly totally black (90-100%), 71% of black pupils were placed in nearly totally black classes (Glass, et al., 1970, p. 20 and p. 36). We do not know the comparable figures for 1977, but certainly the extensive use of "pull out" programs does nothing to promote the racial integration of classrooms.

The Effects of "Pull Out"

Evidence on the effects of the "pull out" method per se on pupil achievement is scant and derives principally from two sources: (1) the NIE survey of compensatory education (NIE, September 1977); (2) the SDC evaluation of the Emergency School Aid Act.

The NIE study is the most prominent. Its findings are summarized in Table 3.2. The conclusions drawn in the NIE study from inspection of Table 3.2 are as follows:

> "Results differ by grade level. First-grade students who received instruction in the mainstream setting made significantly larger gains in both reading and mathematics than those in pullout settings. In the third grade, however, these findings are reversed im mathematics, and the two settings are almost equal in reading. It appears that neigher setting is consistently associated with greater instructional effectiveness."

All things considered, the interpretation of the differences in gains under "mainstream" and "pull out" in Table 3.2 says more about them than we would have said. The table conveys a single impression: there are no important differences in performance between "mainstreamed" and "pulled out" pupils.

The NIE effects study was not experimental; compensatory pupils were found in regular or "pull out" settings as they naturally occurred. It almost goes without saying that the two groups would not be randomly equivalent at the outset; considering this fact, it is surprising that the groups are as equivalent as they appear to be on the Fall pretest. The equivalence apparently reflected in the Fall pretest at grade 1 may be illusory; scores as low as those obtained could reflect chance performance or the inability of the test to discriminate because the pupils were below the effective measurement "cellar" of the test. In that case, the apparent pretest equivalence of the two groups might disappear if the pupils were measured with a test more appropriate to their level.

The presumption is strong that the pretests in the NIE study were so difficult for all pupils that the obtained scores are merely chance level and, hence, one can have little confidence that the "pull out" and "mainstream" groups were

Table 3.2

Fall and Spring "Comprehensive Test of Basic Skills" (CTBS)

Scores for "Mainstreamed" and "Pulled Out"

Compensatory Education Pupils*

	No. of Pupils	Approx. No. of Classrooms	Average Raw Scores		Average Grade Equivalent Scores	
			Fall	Gain to Spring	Fall	Gain to Spring
Grade 1						
Reading						
Mainstreamed	311	90	24.3	27.0	0.4	1.3
Pulled Out	1,044	90	23.6	22.7	0.4	1.2
Mathematics						
Mainstreamed	1,172	90	15.7	12.1	0.4	1.2
Pulled Out	257	<40	15.6	8.8	0.4	1.0
Grade 3						
Reading						
Mainstreamed	195	?	19.4	10.0	1.8	0.5
Pulled Out	1,211	90	19.8	11.4	1.9	0.6
Mathematics						
Mainstreamed	170	?	20.5	12.0	1.6	0.9
Pulled Out	622	45	21.5	16.3	1.7	1.2

* After Table 2, p. 23 of NIE (1977).

initially equivalent in other important respects. The pretest raw score reading mean at grade 1 is about 24 for both groups. But Level B of the CTBS has 84 reading items of which 46 have three-options and 38 have four-options. If pupils guessed randomly among the options, a chance raw score would be expected to equal about 24.8, nearly identical to the reading pretest averages. If pupils guessed randomly on the 56 three-option math items of CTBS Level B, their expected average would be 18.7, a figure about three raw-score points about the observed raw-score means in Table 3.2. We suspect, then, that CTBS Level B was inappropriately difficult as a pretest and that the pretest means are dubious evidence of equivalence of the "pull out" and "mainstream" groups.

Regardless of the true, but unknown, initial non-equivalence of the mainstreamed and pulled out groups, no attempt was made in the NIE study to measure personal or environmental variables and correct posttest achievement accordingly. It is doubtful that if such attempts had been made that it would have made much difference.

It is exceedingly difficult to assess the statistical significance of the NIE findings in Table 3.2. Clearly, the individual pupil ought not to be regarded as the unit of statistical analysis. However, it is impossible to tell from the report precisely how many intact groups are represented in the samples of several hundred "pull out" and "mainstream" pupils. We have attempted a few "quick-and-dirty" analyses assuming about ninety classrooms of each type of pupil, and in most instances, the posttest means appear to be statistically significantly different. However, we have little confidence in these calculations.

It is dubious to attempt to read statistical significance or psychological importance into the trivial differences in gains between "mainstream" and "pull out" programs in Table 3.2. The overall finding averaged across grades and subjects is the most reliable, and it reveals virtually no difference between achievement in mainstream and pull out settings: the NIE study shows the difference in achievement gains between mainstream and pull out programs to be one-fourth of one month in grade-equivalent units.

The third year ESAA evaluation report (Coulson, et al., 1977) presents more believable evidence on the effects of "pull out" programs. The analyses in question are complex and difficult to describe; but briefly, the design was as follows: the achievement scores for several thousand pupils in reading or mathematics at grades 3-5 and 10-12 were regressed onto several independent variables including various adult to pupil ratios, total hours of instruction, pupil absenteeism, teachers' expectations for pupils' performance, etc. and "proportion of time spent in either 'pull out' reading or math." Thirty-three separate stepwise regression analyses were performed. The regression weight for the "proportion of time in 'pull out'" can be regarded as indicative of a quasi-experimental effect (at least on a par or superior in validity to the mean differences in the NIE study). In 33 analyses*, the "pull out" variable entered the regression equation eight times; each time it was negative and statistically significantly so. The size of the non-zero weights did not vary by subject (reading and math) or grade level. The interpretation is that the greater the proportion of time the pupil spends in "pull out" reading or mathematics, the lower his achievement.

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* Appendix VII-B through Appendix VII-M in Coulson, et al. (1977).

One similar study (Kiesling, 1971) carried out on data from 37 Title I projects in California, regressed achievement onto several "input" variables descriptive of compensatory program resources. The input-variable "percent of time in regular classroom" (the inverse of the "pull out" variable in the ESAA study) carried a small negative weight (the opposite of the ESAA finding) in the regression analysis, but the weight was not statistically significant.

Satisfactory experimental and quasi-experimental studies on the effects of "pull out" are still needed. However, one finds nothing in the studies reviewed above that points to benefits of the technique; and one study (the ESAA evaluation) raises suspicions that the effects of "pull out" may be detrimental to academic achievement.

Chapter 4

EFFECTS OF "PULL OUT" INFERRED FROM RELATED RESEARCH

As was seen in the previous section, there is little direct and representative research evidence on the effects on pupils of "pull out" compensatory programs. The "pull out" program form shares features with several other methods or phenomena of teaching: "mainstreaming" the handicapped, labeling and consequent teacher expectations, ability grouping, peer tutoring, and racial desegregation. Some empirical research exists on each of these related topics. From it, a plausible argument might be constructed about the possible effects of "pull out" programs on pupils.

"Mainstreaming" the Handicapped

Integrating retarded and emotionally disturbed pupils into regular classrooms is a visible and galvanizing educational concern. It is often spoken and written about, but seldom studied in any disciplined way. The phenomenon is pertinent to the "pull out" question in several respects. As would be true if "pull out" programs were abolished, "mainstreamed" handicapped pupils are moved from separate resources rooms into larger groups of higher achieving pupils with regular teachers. The important difference between mainstreaming special education pupils and reversing "pull out" for compensatory education pupils is that special education pupils are typically worse off and harder to teach than compensatory education pupils.

The empirical research base for "mainstreaming" retarded or emotionally disturbed pupils is a meager four documents. What might have been expected to have been the most comprehensive and significant study on mainstreaming proved to be an expensive disappointment. The OE Bureau of Education for the Handicapped study of mainstreaming entitled Project PRIME is uninformative on questions of the relative advantages of mainstreaming versus special placement. Martin J. Kaufman of BEH was kind enough to let us see a draft of the Project PRIME report. The study eschewed any comparison of mainstreamed and non-mainstreamed pupils and justified this choice as follows: "The nature of the sampling procedures precludes making comparative statements about the relative social competence of EMR and normal children, or mainstreamed retarded children, and retarded children in segregated classes. The wide disparity of characteristics of these three samples of children makes any comparative statement virtually uninterpretable. Furthermore, in view of recent federal legislation (PL 94-142), statements comparing regular and special class placements may be less meaningful than statements concerning which aspects of the classroom environment maximize the social competence of retarded pupils." At another point in the report, it is written that, "Given that mainstreamed education is now mandated by law, it is no longer a practical issue to determine whether mainstreamed or segregated education provides a more advantageous environment to retarded children's social competence...." The assumption that PL 94-142 mandates mainstreaming is patently false: it requires only that retarded pupils be placed in the "least restrictive environment" and the interpretation of the phrase is left to the local district. The BEH report on Project PRIME presents a plethora of virtually uninterpretable multiple

correlations (presumably having to do with "optimizing" circumstances for mainstreamed pupils). It is singularly lacking in quasi-experimental ingenuity and completely uninformative on the question of the wisdom of mainstreaming.

Three classic, small-scale studies form the decrepit empirical foundation of mainstreaming policy. The oldest study by Vacc (1968) is widely believed to lend research support to segregated classes for the emotionally disturbed. It doesn't. The study was confounded by differential regression effects for the segregated and mainstreamed pupils and the data analyses were poorly done. Our reanalysis shows no evidence of differences in achievement or emotional adjustment between the mainstreamed and segregated pupils. Two related studies (Gampel, et al., 1974; and Goodman, et al., 1972) lend empirical support to the advantages of mainstreaming. The experiments were similar in that educable mentally retarded (EMR) pupils were randomly assigned to segregated and mainstreamed classes. The data show convincingly that the behavior of the mainstreamed EMR pupils came to resemble that of their normal classmates and increasingly had less in common with the behavior of their segregated peers. In general, segregated EMR pupils behave in more socially awkward and hostile-aggressive ways than do mainstreamed EMR's.

This thin soup of research is hardly the kind of diet upon which one can build an innovation or a policy; but what there is of it, certainly does not refute the wisdom of mainstreaming.

Research on Labeling: Teacher Expectations

The largest and most methodologically sound body of research relevant to the "pull out" issue concerns the effects of labeling pupils. This line of inquiry is known among educational researchers as the study of "teacher expectations" or the "expectancy bias." Most of it dates from Rosenthal's original investigation of the "Pygmalion effect."

The paradigm for research on this topic is as follows: an experimenter informs a teacher that a subgroup of her class shares a certain attribute, most often high or low intelligence or learning potential; in fact, the subgroup was only randomly determined so that subsequent changes in teachers' behavior toward the pupils and the pupils' progress can be attributed to the label per se. Research on "teacher expectations" (or "labeling") is pertinent to the "pull out" issue because both labeling of a pupil as being "Title I eligible" and emphasizing such a lable by removing him from the regular classroom could create strong expectancy biases in teachers and pupils alike.

We were initially skeptical of the significance of the "labeling-expectation" with IQ. After reading and analyzing data from a few dozen research reports, however, we have come to recognize the issue as being of central importance and deserving serious attention. Our conclusions, to be detailed shortly, are these: to label a pupil as "slow," "dull," "low IQ," or "lacking potential" works almost no effect on his IQ, a modest but measureable effect on his academic achievement, and a substantial effect on his teachers' opinions of him and how they treat him.

Forty-three studies of the effects of labeling and teacher expectancy were located.* These studies were read to determine the form of the label or expectation, the adequacy of the research design, the subjects studied, and the measure of effect. Three general categories of effect were distinguished: (1) effect of label or expectation on teacher judgment -- attitudes expressed or ratings given by the teacher concerning the students' level of achievement, potential, or behavior; (2) effect of label or expectation on teacher behavior -- praise, criticism, time spent, and learning opportunities provided; (3) effect of the label or expectation on the students' IQ, classroom achievement, etc. In order to integrate the findings of the studies within these categories, the statistical results were converted to "effect sizes" expressed as the difference between the mean of the more favored group (with high expectancy or label) and the mean of the less favored group, divided by the standard deviation of the less favored group, that is ES = $(\bar{X}_{High} - \bar{X}_{Low})/s_{Low}$. Thus, an effect size of +1 indicates that a person at the mean of the low expectancy or labeling condition is worse off than 84% of the persons in the high expectancy group. (For an explication of the statistical procedure, see Glass, 1977.)

Table 4.1 contains the results from this meta-analytic procedure. In the category Teacher Judgment, eleven controlled studies produced 33 effect sizes, the average of which is .47. Thus, the high expectancy or lable had almost one-half of a standard deviation effect on teacher justments. Teachers' ratings of the pupils' intellectual ability showed the most influence of the label: $\overline{E.S.}$ = .93. Teachers rated the intellectual ability of students in the high expectancy

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* For the references, see the bibliography in Smith (1977).

Table 4.1

Results of the Meta-Analysis of

43 Labeling/Teacher Expectancy Studies

Category of Effect	Sub-Category	Number of Effects	Average Effect Size
Teacher Judgment		33	.47
	Rated Achievement	12	.26
	Rated Intellectual Ability	4	.93
	Rated Social Competence	2	.75
	Rated Motivation/Interest	3	-.02
	Appeal/Inclination to Teach	2	-.03
	Behavioral Ratings	10	.72
Teacher Behavior		49	.32
	Praise/Support/Sustaining Feedback/Reinforcement	17	.01
	Attention/Time Spent	12	.38
	Learning Opportunities	6	1.09
	Criticism/Antagonism/ Negative Interaction	7	.21
	Ignore/Withdraw From	5	.52
	Other	2	.14
Student Effect: IQ		25	.14
Student Effect: Achievement		41	.26
	Reading	10	.54
	Math	9	-.07
	In-Class/Grades	5	.42
	Words, Concepts Learned (Lab Tutorial)	2	1.11
	Other Achievement	15	.10
Other Student Effects		7	.16
	Creativity	1	-.03
	Sociometric Choice	3	.10
	Social Competence	1	.89
	Attitudes	2	-.02

group almost one standard deviation higher than that of the low expectancy group even though the true intellectual capacity of the two groups was equal. Rated social competence of the high expectancy group was $\overline{E.S.}$ = .75, greater than the low expectancy group.

Fourteen studies in the Teacher Behavior category yielded 49 effect sizes for an average of .32. There were notable differences in the average effect sizes within subcategories. For the teacher behaviors of "sustaining feedback" or "reinforcement," the average effect size was .01. This was in sharp contrast to the studies measuring the "learning opportunities" provided to the high and low expectancy group ($\overline{E.S.}$ = 1.09). The tendency of teachers to "withdraw from" or "ignore" students was greater for the low expectancy group ($\overline{E.S.}$ = .52).* The amount of "attention paid to" and "time spent" with the high expectancy group was greater than the low expectancy group ($\overline{E.S.}$ = .38).

About half the teacher behavior studies were naturalistic rather than controlled experiments. In the naturalistic studies, one cannot separate the effect of student ability (or all other characteristics) from the effect of teacher expectancy. However, the average effect sizes for the naturalistic studies and the controlled experiments did not differ on the average.

The effect of labeling or expectancy on student IQ following a period of instruction was extremely small. Thirteen controlled studies yielded 25 effect sizes, the average of which was .14. Forty-one effect sizes from 15 studies measuring the impact of teacher expectancy or labeling on student achievement

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* The sign of the effect size was reversed for effects commonly considered deleterious, such as "criticize," "ignore," etc.

averaged a .26 standard deviation effect. The number of words or concepts learned in tutorials showed the greatest effect of teacher expectancy or label -- 1.11 standard deviation average effect size. Reading achievement was also substantially affected ($\overline{E.S.}$ = .54) as were "in-class grades" ($\overline{E.S.}$ = .42). Mathematics achievement, in contrast, was affected not at all ($\overline{E.S.}$ = -.07). Other student effects were negligible, except for the effect of teacher expectancy of social competency of the students ($\overline{E.S.}$ = .89).

Ability Grouping

Grouping pupils into classes of homogeneous ability is relevant to the "pull out" program organization in which the separated classes would be more homogeneous than the integrated class. The research literature on ability grouping is immense and presents the reader with a confusing welter of contradictory, tendentious, antiquated and dubious studies. The hundreds of studies on ability grouping have been frequently reviewed by scholars*, and the history of the reviewers' comments is a record of social ideology projected on a body of evidence too chaotic in its findings to support conclusions of itself.

In the twilight of the age of Social Darwinism, reviewers read the ability grouping literature as supporting homogeneous grouping: or at least not so unfavorable as to discourage widespread hope.

> The experimental studies of grouping which have been considered fail to show consistent, statistically or educationally significant differences between the achievement of pupils in homogeneous groups and pupils of equal ability in heterogeneous groups. This failure to realize one of the

* For relatively recent reviews, see Findley and Bryan (1971) and Borg (1966).

> important advantages claimed for ability grouping is not, however, evidence that homogeneous grouping cannot result in increased academic achievement. Neither do the experiments show that other claims made for grouping cannot be attained under proper organization. There was practically unanimous agreement found among the teachers involved in the studies, that the teaching situation was improved by the homogeneous grouping. (Rock, 1929, p. 125)

At the dawning of the Age of Equal Opportunity, the pastiche of inconsistent findings on ability grouping was read as bearing principally on questions of ethnic group segregation:

> In a very real sense, the extent to which the current practice of ability grouping is permitted to exist in public schools represent [sic] the extent to which professional educators and governmental agencies sanction sub-quality education in a setting that is charged with the responsibility of developing each child to his fullest.
>
> Esposito (1973, p. 177)

Contemporary feelings -- and a couple of key court decisions -- run strongly against ability grouping. In 1971 in Moses vs. Washington Parish School Board (Louisiana), the court held that

1. ability testing could not be used in recently desegregated schools to form ability groups for instruction;
2. where ability grouping results in disproportionate numbers of Blacks in low groups, equal protection considerations arise;
3. the pupils of Franklinton Elementary School must be reassigned to heterogeneous racially integrated groups.

When the ideology is stripped off the research reviews on ability grouping, one undercurrent is clearly seen:

> So far as achievement is concerned, there is no clear-cut evidence that homogeneous grouping is either advantageous or disadvantageous. The studies seem to indicate that homogeneous classification may be effective if accompanied by proper adaptation in methods and materials.
>
> Miller and Otto (1930, p. 102)

> It is, perhaps, rather futile to take merely the administrative steps of segregating the slow pupils unless the supervisory program includes constant efforts to improve and differentiate the content and techniques of teaching in each course of study for the different ability levels.
> Billet (1932, p. 120)

> The results of ability grouping seem to depend less upon the fact of grouping itself than upon the philosophy behind the grouping, the accuracy with which grouping is made for the purposes intended, the differentiations in content, method, and speed and the technique of the teacher, as well as upon more general environmental influences.
> Cornell (1936, p. 302)

> No consistent pattern for the effectiveness of homogeneous grouping was found to be related to age, ability level, course contents, or method of instruction.
> Inability to control the type of teaching and failure to provide differentiation of teaching according to ability levels are important weaknesses in most of these studies.
> Ekstrom (1959a, p. i)

> Ability grouping in itself does not produce improved achievement in children. Improved achievement seems rather to result from the manipulation of other complex factors: curriculum adaptation, teaching methods, materials, ability of the teacher to relate to children, and other subtle variables.
> Eash (1961, p. 430)

> Ability grouping is inherently neither good nor bad. It is neutral. Its value depends upon the way in which it is used.
> Goldberg, Passow, and Justman (1966, p. 168)

These are not truisms, although they may appear to be so. What these reviewers are saying, in effect, is that the research shows homogeneous vs. heterogeneous grouping not to be an important variable in itself. Only as ability grouping relates to or potentiates other changes in instructional activities is it a circumstance worth noting. And the accumulated research literature of several decades shows such an unstable pattern of what takes place

between teachers and pupils in homogeneous as opposed to heterogeneous classrooms that no generalizations are possible (or useful) about the effects of ability grouping.*

In spite of the disappointing message that can be extracted from the ability grouping literature, one study impressed us as highly pertinent and credible. The study, as yet unpublished, gave evidence of what might occur when ability grouping was reversed, as for example, when pupils once "pulled out" are replaced in higher achieving classes. And the study seemed to relate in important ways to the teacher expectation literature whose message was clear and credible.

Tuckman and Bierman (1971) conducted a controlled experiment on the effects of transferring pupils across ability group lines. Over 350 black junior and senior high school pupils were arbitrarily assigned to the next higher ability group than indicated by their test scores and previous teacher recommendations. A randomly equivalent group of pupils of the same size was left in the recommended lower ability groups. After only a single semester, the results showed dramatic effects of the integration of pupils into higher ability classrooms. Standardized test results were generally superior for the artificially accelerated pupils; but more importantly, teachers recommended that 54% of the elevated pupils be retained in the higher ability group whereas on 1% of the comparable controls were recommended for the higher ability group!

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* Although we are uncertain whether it ought to be interpreted as a comment on the consistency of ideology or of empirical research, it is perhaps worth noting that virtually no modern writers claim that ability grouping benefits low achieving pupils and many claim it is detrimental for them.

Peer Tutoring

The phenomenon of peer tutoring is probably less relevant to the "pull out" problem than any area of colateral research we have considered. However, it is true that instruction of compensatory pupils in the "pull out" setting will reduce the opportunities for faster pupils tutoring slower pupils that could exist in integrated classes. To the extent that peer tutoring is a part of regular classroom instruction, its benefits could be foregone in a "pull out" organization.

The benefits of peer tutoring have been clearly established. In research completed by Dr. Susan S. Hartley at the Laboratory of Educational Research of the University of Colorado in June 1977, the facilitative effects of peer tutoring in mathematics were convincingly documented. Nearly thirty experiments -- some of them involving Title I programs -- were found that evaluated the effects of peer or cross-age tutoring in mathematics. When the 73 outcome measures from these studies were integrated statistically, it was found that the tutored groups scored .60 standard deviations higher in math achievement than the non-tutored groups. What makes this finding even more impressive is that the beneficial effects of tutoring were greatly superior to the effects of much more expensive instructional methods such as computer-assisted instruction, individualized learning packets and programmed instruction (see Table 4.2).

Desegretation

Almost none of the huge number of studies of the effects of racial desegregation or ethnic-group segregation can be regarded as relevant to the "pull out" issue. The principal shortcoming of the desegregation research is that racial or

Table 4.2

Average Effect Sizes (ES - $(\bar{X}_{Exp.} - \bar{X}_{Con.})/s_X$)

By Instructional Technique

	Technique			
	Tutoring	Computer-Assisted Instruction	Individualized Learning Packets	Programmed Instruction
Mean Effect Size	.597	.409	.158	.110
Standard Deviation of Effect Sizes	.684	.588	.647	.702
Standard Error of Mean	.080	.062	.055	.074
Number of Effect Sizes	73	89	139	89
Number of Studies	29	35	51	41

ethnic group composition of schools instead of classrooms is studied. "Pull out" programd do not alter the racial mixture of schools, though they may and probably do change the racial composition of classes within schools.

Only one study was found in which the impacts on pupils' achievement of school and classroom racial composition were separately assessed. McPartland (1969) reanalyzed the Coleman data controlling alternately for "percent white" in the classroom and the school. First, he partialed out the effects of pupils' family backgrounds and the "percent white" in the school. Then he observed changes in black pupils' verbal achievement as one moved across the following four categories of classroom racial composition:

1) No white classmates
2) Less than half white classmates
3) About half white classmates
4) More than half white classmates

On the average, there was a +.16 standard deviation difference from one category of classroom racial composition to the next higher category. Put differently, there was nearly a two-thirds standard deviation difference in verbal achievement between blacks in all black classes and blacks in classrooms more than half white even after pupils' family background and racial composition of school are statistically controlled.* The fact remains that McPartland's

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* In the NIE (September 1977) report, it was concluded that "... studies of peer influences do not support the claims made by proponents of mainstreaming that the socioeconomic and achievement levels of their classmates affect pupils' academic performance" (p. 7). However, the authors apparently overlooked McPartland's study and cited Smith (1972) in support of their conclusion. In fact, Smith (1972) pointed out that technical problems in the analysis of the Coleman data resulted in the claim of peer group influence not being properly tested; he did not write that the claim had been refuted.

study was non-experimental and it leaned heavily on imperfect statistical adjustments (e.g., controlling family background would not control perfectly for ability tracking taking place within the school). In spite of the inevitable imperfections of non-experimental research of which McPartland's study partakes its share, the study is nonetheless suggestive (if only of a foregone conclusion, a skeptic might argue).

Other research (equally lacking in experimental rigor and resting heavily on the sociologist's faith in ex post facto statistical control) suggests that a pupil's classmates are more influential than his mere schoolmates. Campbell and Alexander (1965) and McDill, Meyers, and Rigsby (1966) purport to demonstrate that a pupil's close friends have more effect than his schoolmates on his values, attitudes and educational aspirations.

These few research studies suggest that as "pull out" alters the immediate classroom social composition (the race, ability and achievement of a pupil's classmates), it is altering a significant set of influences of his own academic achievement, values, and aspirations. And it appears that the immediate environment of the "pulled out" pupil is less favorable in these respects than that of the compensatory education pupil left in the regular classroom.

Summary of Effects of "Pull Out" Inferred from Related Research

Whether the related research reviewed here offers a useful analogy for "pull out" programs depends on how closely such programs resemble mainstreaming the handicapped, ability grouping, racial desegretation, etc. To be sure, the "pull out" technique shares gross features with each of the major topics reviewed in

this section. The low achieving "Title I eligible" pupils are "pulled out," and in this respect "pull out" is like ability grouping. Ethnic group differences in achievement being what they currently are, "pull out" programs result in a mild form of ethnic group segregation -- although no one would claim that the intent behind them is discriminatory. Separating high and low achieving pupils lessens opportunities for peer tutoring and role modeling, but it may provide opportunities for specialized instruction. "Pulling out" disadvantaged pupils may reinforce a form of labeling and create expectations for failure in the minds of teachers and other pupils; or it may create the expectation that the pupils "pulled out" will prosper since special efforts are being made in their behalf.

The difficulty in drawing an analogy between "pull out" and allied forms of instruction is that too little is known about exactly what happens to pupils who are "pulled out" and what they, their peers, and their teachers think about it. Only the crudest demographics of the phenomenon are known (cf. Chapter 3), and they are insufficient to indicate which areas of related research are most pertinent and how confidently one could argue that their findings (e.g., of mainstreaming, or of ability grouping) apply with equal force to "pull out."

Nevertheless, research distantly related to "pull out" cannot be ignored. We find that, in general, research does <u>not</u> support the wisdom of instruction under conditions like those that prevail in "pull out" programs. Pupils pulled out of regular classrooms would have to receive remarkably effective compensatory programs to offset the potential risks incurred. In our opinion, the "pulled out" pupil is placed in moderate jeopardy of being dysfunctionally labeled, of foregoing opportunities for peer tutoring and role modeling, and of being segregated from pupils of different ethnic groups.

Chapter 5

HISTORICAL AND POLITICAL CONTEXT OF "PULL OUT"

We are not historians, much less political scientists. Our knowledge of the politics of education is like the knowledge that a blocking dummy has of football strategy or a punching bag of the art of self-defense. Nevertheless, our reading of several documents on the creation and administration of Title I, interviews with a few dozen persons at all levels concerned about compensatory education, and the senior author's experience in Title I evaluation prior to 1970 have left us with deep impressions about how the "pull out" problem was created, what sustains it, and what should be done about it. And the opinions that follow have been tested for consistency where possible against the data in the three previous chapters.

Congressional debate on ESEA 1965 broached at least two significant issues: 1) the question of general versus categorical aid; and 2) the church-state issue. The fear was strong in many quarters that Federal aid to schools would be used as general aid, spent merely to reduce local taxes and not for the special purposes embodied in the titles of ESEA. Eventually, the "categorical aid" proponents won. The church-state issue was finessed by specifying that Title I aid was to pupils not to schools -- the latter distinguishable as either public or parochial, the former apparently not.

By the time the bill became P.L. 89-10, USOE was strongly predisposed (as a result of the Congressional battles and a natural bent) to write regulations that insured that Title I funds would be spent only on "eligible" pupils for compensatory programs. Thus emerged regulations on "supplementing, not supplanting,"

"excess cost," etc. The five-year period immediately following enactment of ESEA 1965 saw the fires of enthusiasm dampened by a succession of unfavorable evaluation reports. Questions of the validity of these evaluations aside (and serious questions remain), the reports were disturbing to USOE Title I personnel. They tended, in general, to believe the evaluations -- accepting too credulously, in our opinion, the validity of the outcome measures used -- and ascribe the negative findings to the failure of the public schools to "target" Title I funds in sufficient quantities on low achieving pupils. It was widely decried that the average compensatory education pupil received only about $100 of Title I services in a year.

From the inception of the idea of Title I to the present, there has been no strong defender of the position that all pupils in poor schools deserve compensatory services. The argument can be advanced with some force that any pupil in a school with a high concentration of poor children is put at an educational disadvantage in numerous ways: (1) his school cannot attract as experienced or competent teachers as a rich school; (2) he lacks the advantages of social relationships with peers who would provide good role models; (3) he may attend classes that are disrupted or disorganized by the special problems that poor or low achieving pupils present; etc. Considering these secondary or indirect effects of concentrations of poor pupils in schools, it is clear that even pupils of above average achievement have a right to compensation of some educational disadvantages. But the debate in Congress that might have reached such issues became trivialized. The spectre of the rich kid in Montgomery County, Virginia, who might receive Title I services was repeatedly invoked by the defenders of

categorical aid to put down the proponents of general aid. In the pitched battle over categorical versus general aid, sight was lost of the middle ground. Title I funds could have been aimed at schools with large concentrations of poor children, but with the understanding that (1) all pupils in poor schools need help because of the direct and indirect effects of poverty, and (2) school programs and school organization are totalities that one doesn't break up by outside intervention without risk of detrimental effects to the school and its pupils.

However, this second guessing of history does not change the fact that by 1970, USOE was prepared to take vigorous steps to see that Title I funds were "targeted" on eligible pupils (i.e., pupils with low achievement test scores). The mechanisms of enforcing targeting were audits of programs for supplanting violations and the training of Title I officials in state education agencies to encourage targeting. When one listens to SEA Title I coordinators in different states, one hears a single message that speaks of a common origin. The SEA Title I coordinators tell the local school districts that they must institute a "recognizable" compensatory education program in order to avoid a "supplanting violation." They advance a common set of arguments in an insensitive casuistry that local schools are at a loss to rebut. When the local schools wish to remove a low achieving pupil from regular reading (where he isn't benefiting) to remedial reading, the SEA Title I coordinators claim that such a move would constitute a supplanting violation.* If the LEAs insist that their Title I eligible

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* Thus one sees that the supplanting issue, that can only be interpreted as an economic concern about replacing local taxes with Federal taxes in the Congressional debates on ESEA 1965, has been translated into an educational concern by 1975, and the SEAs are using it to second guess the curricular decisions of the LEAs.

pupils cannot profit from the reading instruction in regular classes, the SEA coordinator chastizes them for running programs normally that do not benefit all pupils. When the LEAs ask how they can avoid a supplanting violation, the SEA coordinator offers the "pull out" model: all pupils should receive basal reading for thirty minutes, then the Title I eligible pupils should be removed to a special room for remedial (Title I) instruction by a reading specialist while the non-eligible pupils in the regular classroom can be given study time, science, or social studies. By some chop logic, supplanting is not supplanting at all if what is supplanted is science or social studies. The SEA Title I coordinators are purveyors of sophistry, and bad sophistry at that.

We give credit (or lay blame) for the widespread use of the "pull out" model to the USOE Title I regulations and their enforcement by the SEA Title I coordinators. As one state education department official put it" "'Pull out' exists for one reason only; because the 'locals' are afraid Big Brother will catch them in a 'supplanting' violation." The "pull out" model is an artifice designed to demonstrate to outsiders compliance with Title I regulations. It was not devised through the exercise of professional judgment on the questions of how best to compensate for the disadvantages suffered by pupils in poor schools.

The "pull out" model is advocated only by a bureaucratic constituency in USOE and the SEAs. It is not supported on its educational merits by any other significant groups: not by researchers, not by local administrators, not by teachers individually or en masse. The National Education Association regards "pull out" as a minor issue. NEA feels that in general supplementary services

should be rendered as far as possible in the regular classroom. Their primary concern is with pupil-to-teacher ratios; they would watch to see that "mainstreaming" Title I pupils did not increase pupil-to-teacher ratios, but they would not be greatly concerned otherwise. The "pull out" problem seems to be no one's major concern. But it may well be one of those quiet inconspicuous matters that count heavily in ways seldom clearly seen.

Chapter 6

CONCLUSIONS, OBSERVATIONS, AND RECOMMENDATIONS

Our work has led us to the following conclusions and observations about the "pull out" technique and several recommendations for dealing with the problems it raises.

1. Pulling Title I eligible pupils out of regular classrooms for compensatory instruction is virtually universal.

2. The "pull out" procedure per se has no clear academic or social benefits and may, in fact, be detrimental to pupils' progress and adjustment to school.

3. The "pull out" procedure is used by schools more to satisfy Title I regulations than because it is judged by teachers to be a sensible and beneficial plan.

We wish to bring the following recommendations to the attention of those persons at all levels who administer Title I programs and who will influence the evolution of compensatory education:

1. The Title I regulations, which now reflect an overweening concern with targeting funds on "eligible" pupils, should be examined. New considerations should be given to the needs of all pupils in poor schools and the integrity of total school programs.

2. Instructional strategies should be devised that would eliminate the invidious labeling of compensatory education pupils and their segregation from classes of "regular" pupils.

3. Teachers, administrators and other persons connected with Title I programs should be informed of the findings of research on the "pull out" method and associated phenomena.

4. Methods should be devised of counteracting the possibly detrimental effects of "pull out" where educators choose to use it or have no reasonable alternatives. Such methods could include means for coordinating instruction across two sites and techniques of teacher observation that lessen the possibility that "pulled out" pupils will be unconsciously neglected in regular classes.

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Appendix A

PERSONS INTERVIEWED ON THE "PULL OUT" ISSUE

Dr. Richard Cortright
National Education Association

Dr. George Cronk
New York Department of Education

Dr. Joy Frechtling
National Institute of Education

Dr. Gerald Freeborn
New York Department of Education

Dr. John Garrett
Denver Public Schools

Dr. David Gordon
California Department of Education

Dr. Susan S. Hartley
Northwest Missouir State College

Office of Senator Floyd Haskell
Denver, Colorado

Dr. Ralph Hoepfner
Systems Development Corporation

Ms. Linda Jones
Colorado Department of Education

Dr. Martin Kaufman
BEH, U.S. Office of Education

Dr. Michael Kean
Philadelphia Public Schools

Dr. Bernard McKenna
National Education Association

Dr. Richard Mallory
National Education Association

Dr. Robert Mendro
Dallas Public Schools

Dr. Lynn Morris
Center for the Study of Evaluation, UCLA

Dr. Iris Rothberg
National Institute of Education

Ms. Ann Rutherford
Denver Public Schools

Dr. Robert Stonehill
OPBE, U.S. Office of Education

Dr. Gary Toothaker
Superintendent of Rifle Public Schools

Dr. Bruce W. Tuckman
Rutgers University

Dr. Jean Wellisch
Systems Development Corporation

Dr. David E. Wiley
CEMREL, ML-Group